

**DETERMINATION BY THE GAS AND ELECTRICITY MARKETS AUTHORITY
OF A DISPUTE UNDER SECTION 23 OF THE ELECTRICITY ACT 1989
CONCERNING THE CHARGES FOR THE PROVISION OF A POINT OF
CONNECTION BETWEEN A DEVELOPMENT AND THE DISTRIBUTOR'S
ELECTRICITY DISTRIBUTION SYSTEM**

INTRODUCTION

- 1.1. The Gas and Electricity Markets Authority ("the Authority") has been asked by [REDACTED] ("the Authorised Distributor") to determine a dispute between the Authorised Distributor and Scottish Power Energy Networks ("the Company"). The dispute concerns the charges levied for reinforcement works associated with the provision of a point of connection between the Proposed Development and the Distributor's electricity distribution system a connection requested at [REDACTED] ("the Premises").
- 1.2. The dispute has been referred to the Authority¹ for determination under section 23 of the Electricity Act 1989 ("the Act"). The Authority is required to determine such disputes once the Authorised Distributor has asked it to do so.
- 1.3. Copies of the submissions by the Authorised Distributor and the Company in relation to this dispute are attached as Appendices 1 and 2 (respectively) to this Determination. The responses to the parties' submissions and further comments are part of these appendices.

STATUTORY OBLIGATIONS

- 1.4. Section 16(1) of the Act, places an obligation on the Company to connect any premises to its distribution system if the owner or occupier (or authorised supplier acting on his behalf) requests it.
- 1.5. Section 16A of the Act sets out the procedure that should be followed when a connection is requested. It specifies that the person requiring a connection under section 16(1) shall give the distributor notice requiring him to offer terms for making a connection. It also states that as soon as is practicable after receiving that notice and any other information reasonably requested by the distributor, that the distributor shall give to that person a notice:
 - a) stating the extent (if any) to which his proposals are acceptable to the distributor and specifying any counter proposals made by him;
 - b) specifying any payment which that person will be required to make under section 19(1) or regulations under section 19(2);

¹ In this document the terms the "Authority" and "we" are used interchangeably

- c) specifying any security which that person will be required to give under section 20; and
 - d) stating any other terms which that person will be required to accept under section.
- 1.6. Section 19 provides that where any electric line or electrical plant is provided by an electricity distributor in pursuance of section 16(1) above, the distributor may require any expenses reasonably incurred in providing it to be defrayed by the person requiring the connection to such extent as is reasonable in all the circumstances.
- 1.7. Any dispute arising under section 16 to 21 of the Act, between an electricity distributor and a person requiring a connection may be referred under section 23 of the Act for determination.
- 1.8. Section 23(1c) of the Act provides that a dispute may only be referred to us for a determination within 12 months from when the connection was made.
- 1.9. Regulation 4 of the Electricity (Connection Charges) Regulations 2002 ("the Regulations") defines the prescribed period as lasting for five years after the provision of any electric line or electrical plant for the purpose of making a connection to the premises or distribution system of an initial contributor.
- 1.10. Regulation 5 of the Regulations sets out the right that electricity distributors have to require a person requiring a connection to pay an amount in respect of any relevant expenses incurred in making the connection. The electricity distributor may only exercise this right if it is done within the prescribed period and an initial contributor has already made a payment to the electricity distributor in respect of the relevant expenses. In addition, the electricity distributor must not have recovered the relevant expenses in full. The electricity distributor must have made available to the person requesting the connection such information (if any) as may have been reasonably requested by that person for the purpose of ascertaining the amount of the relevant expenses, the date of the first provision of the electric line or electrical plant and the amounts paid in respect of the relevant expenses by the initial contributor or by persons previously required to make a payment under the Regulations.
- 1.11. Regulation 6 places an obligation on electricity distributors to recover the amount in respect of expenses if within the prescribed period: (a) any electric line or electrical plant first provided for the purpose of making a connection to a premises is subsequently used for the purpose of making a further connection to another premises; and (b) the relevant expenses have been wholly or mainly defrayed by the initial contributor or by that contributor and any other person previously required to make a payment in accordance with the Regulations.
- 1.12. The Regulations define the "initial contributor" as meaning a person in relation to whose premises or distribution system any electric line or

electrical plant was first provided for the purpose of making a connection and who made a payment in respect of the relevant expenses.

FACTS OF THE CASE

- 1.13. We consider the following to be the facts of the case, based on the assessment of the information submitted to us by the parties to this determination.
- 1.14. The Authorised Distributor requested a 1MVA point of connection (POC) from the Company at [REDACTED] in August 2011. The POC offer issued to the Authorised Distributor included a charge of £143,330 for reinforcement works. In its determination request the Authorised Distributor disputed the reinforcement charges levied for this connection point. It also questions the justification for the need of the reinforcement work on the network at that point in time and whether the reinforcement was the minimum scheme.
- 1.15. According to the Company, the reinforcement work at [REDACTED] was required to facilitate any future connections at [REDACTED] since load flows undertaken in 2006 showed the network to be just within operational limits. The reinforcement work referred to in the POC offer provided to the Authorised Distributor was proposed in 2006, received internal authorisation in August 2007, began in March 2008 and was completed in December 2010.
- 1.16. The recommended reinforcement option presented in the Technical Approval Report in 2006 proposed equipping the existing Chapelford 11 kV primary substation with a transformer to connect to the 33 kV network. The 11 kV network would also be re-grouped to form a group of five and a group of two 33/11 kV transformers. A new 33 kV interconnector between Sankey Bridges and Dalam Grid was required to improve the interconnection of the groups. The capital cost of this work was estimated at £1.028 million in the Technical Report. The final cost on completion of the works was £1,676,583.
- 1.17. On 4 August 2011 the Authorised Distributor requested the provision of a point of connection (POC) of 650 KVA to the Company to progress their client's development connection at the Premises.
- 1.18. On 2 September 2011 the Company provided a quotation for the work scheme which included the cost of making the connection with no reinforcement charges.
- 1.19. The Company then withdrew the quote when it realised an error had been made and no reinforcement charges were included. On 12 September 2011 it produced a revised quote which included a reinforcement charge for HV only (£67,102).
- 1.20. On 10 October 2011 the Authorised Distributor informally requested an upwards revision of its capacity to 1000KVA.

- 1.21. On 17 October 2011, the Company withdrew the offer dated 12 September 2011 having noticed that it had omitted the reinforcement charge for the EHV from its latest offer. It provided clarification on reinforcement charges for both the 650KVA and 1000KVA offers.
- 1.22. On 28 October 2011 the Authorised Distributor then requested that a revised offer be issued based on a 1000kVA connection load.
- 1.23. On 31 October 2011 the Company issued an offer with a final reinforcement charge of £143,330 which included both the EHV charges (£57,300) and the HV charges (£86,030).
- 1.24. On 16 December 2011 the Authorised Distributor accepted the offer and submitted the design approval for the Company to consider.
- 1.25. On 19 April 2012 the Authorised Distributor raised a formal complaint with the Company requesting an explanation for the initial errors in the provision of quote and more information on the reinforcement charges.
- 1.26. During April and May 2012 there was further engagement between the Authorised Distributor and the Company in order to progress the connection at the Premises prior to receipt of payment. During this time the Company also assisted the Authorised Distributor in the provision of witness testing for the site despite the Authorised Distributor not having paid for the connection yet.
- 1.27. On 2 May 2012 the Authorised Distributor referred the matter for a determination.
- 1.28. On 3 May 2012 the Company replied to the Authorised Distributor's formal complaint apologising for the errors in the first two offers and providing an explanation regarding the reinforcement charges.
- 1.29. On 29 May 2012 payment was received by the Company from the Authorised Distributor to enable the 1000KVA connection to take place.
- 1.30. On 1 June 2012 the Company confirmed the delivery programme and its intention to progress works on 15 June 2012 with scheduled completion by 19 June 2012.
- 1.31. In its request for a determination, the Authorised Distributor disputed the reinforcement charges levied for this connection point. It also questioned the justification for the need of the reinforcement work on the network at that point in time and whether the reinforcement was the minimum scheme.

POINTS OF DISPUTE

Competency of the quotations

- 1.32. The Authorised Distributor disputes the validity of the quotes provided by the Company in response to their original POC request in August 2011. It raised a complaint with the Company requesting an explanation for the multiple errors in the provision of POCs and in regards to the increasing reinforcement charges.
- 1.33. The Company replied to the Authorised Distributor's formal complaint apologising for the omissions stating that the POCs had not been formally accepted by the Authorised Distributor at the time the revised POC was issued.
- 1.34. The Authorised Distributor then explained that it was not able to accept any of the Company's quotations before it had the agreement of its client to go ahead with the work. On 29 May 2012 the Authorised Distributor paid the Company to enable the connection to take place.

Need for reinforcement

- 1.35. The Authorised Distributor considers the Company failed to justify the need for reinforcement in this area because the group had spare capacity to connect new customers. It also disagrees with the Company's right to charge the Authorised Distributor for the reinforcement works since it considers the reinforcement was driven by the Company's own investment needs rather than connection requests.
- 1.36. Additionally, it believes the Company has not provided sufficient information on the alternative options considered to progress works and that there is no justification that the reinforcement was the minimum scheme.
- 1.37. The Company stated that the reinforcement was driven by increased capacity requirements of new connecting customers. In its submission it stated that around 19 connection requests were received between May 2007 and May 2012 associated with 18MVA. It explained that the full 32.5 MVA at the site prior to the reinforcement was fully utilised with no available capacity within the group, so any new connections taken up would have driven a reinforcement requirement.
- 1.38. On January 2007 the Company received a connection request from [REDACTED] for the [REDACTED]. An offer was provided by the Company on 2 May 2007 and it is the Company's case that this request triggered the reinforcement works. However, this connection did not proceed and no payment for the connection was received by the Company.

- 1.39. In any event, internal approval was obtained by the Company to fund the reinforcement work for the Premises and this approval was granted in August 2007.² The reinforcement works commenced in March 2008 onwards, the first electrical line or plant was provided in March 2008 and the works were completed in late December 2010 and energised in early 2011.
- 1.40. In their submission the Company provided a table with information on 19 potential new connections for which connection offers were made between May 2007 and May 2012. Eight customers then paid for these connections plus the apportioned reinforcement charges according to the Company's records.
- 1.41. It is the Company's case, that although the first party in the list is not [REDACTED] it can still demonstrate that the reinforcement was driven by connection requests. According to the Company, [REDACTED] the first customer to connect, assumed the role of initial contributor for the purpose of the Regulations.
- 1.42. We note that [REDACTED] accepted a connection offer approximately 14 months **after** the reinforcement works were commenced.
- 1.43. The Company stated that any one of the number of connection requests received at the time would have triggered the need for system reinforcement within the network area. Any of these connecting customers would ultimately still have paid the same contribution it requested from the Authorised Distributor for its share of the additional capacity created.
- 1.44. The Company confirmed that the associated reinforcement charge (£/kVA) for the [REDACTED] connection was calculated based on the associated total cost of the reinforcement demand request as $\text{£}143.33 \times 765\text{kVA} = \text{£}109,647.00$
- 1.45. In response to the query regarding spare capacity, the Company stated that in August 2007 it carried out an assessment of the related EHV and HV network within the [REDACTED] area of Warrington. It identified the following reinforcement works were required to enable new connections -
- Phase 1 - To install a new EHV / HV primary transformer and associated EHV switchgear at the existing Chapelford primary substation site to provide support to the immediate HV network.
 - Phase 2 - To install an EHV interconnector between the Sankey Bridges and Dallam Grid substations to provide the required EHV circuit capacity within the relevant network.

² In its submission from 14 of September 2012, the Company provided evidence that technical approval was granted for the Premises on 13 of September 2006.

- 1.46. The Company stated that a number of options were considered before committing to the chosen course of action. It stated that the reinforcement works undertaken comply with the minimum scheme required for the Authorised Distributor's connection. The works directly attributable to the connection consisted of looping in an IDNO High Voltage (HV) substation works for the site. This is the minimum standard 1MVA substation connection arrangement for the size and type of supply requested.
- 1.47. Subsequently, the Company submitted a Technical Approval Report for [REDACTED] dated 13 September 2006. The paper supports a proposal to reinforce the 11kV network in Warrington to facilitate 4.5MVA of previously authorised load at Chapelford and 10MVA of authorised load at Northwest Warrington by installing a 7.5/10MVA transformer, regrouping the HV network and establishing a 33kV interconnector between Sankey Bridges and Dallam Grid. A further four options were discussed in this report including the option to do nothing.
- 1.48. The Company stated it had complied with its regulatory duty to recover expenses under the Regulations since this was a connection driven reinforcement. Hence connecting customers should have paid for the reinforcement works.
- 1.49. In order to provide justification for its decision to recover the cost of reinforcement under the Regulations, the Company provided the following timeline of the works:
- a) the reinforcement scheme received the internal Company's authorisation to progress on August 2007, the works commenced in March 2008 with the works being completed during December 2010;
 - b) an initial contributor made payment in respect of the relevant expenses - £109,647 - which was received on 20 August 2009;
 - c) the relevant expenses had not been recovered in full; and
 - d) on 3 May 2012 the Company confirmed to the Authorised Distributor the following request:
 - i. the amount of the relevant expenses for reinforcement- £1,676,583;
 - ii. the date of the first provision of the electric line or electrical plant -31 March 2008; and
 - iii. the amount paid by the initial contributor - £109,647.

CONSIDERATION OF EVIDENCE

- 1.50. We have carefully considered the evidence and comments from both parties (which are set out in Appendices 1 and 2 and summarised in this Determination) and the evidence provided by both parties in support of their case. We have also considered the evidence provided in the oral hearing held on 20 September 2012.
- 1.51. Having sought further clarification as to the facts from both parties and having carefully considered the arguments reflected in the appendices to this determination and subsequent written submissions from the parties,

we have considered in particular the following key issues, amongst others referred to by the parties, in making this determination:

- a) whether the reinforcement was necessary to enable this particular connection;
 - b) whether the reinforcement was the minimum scheme required;
 - c) what can be considered a reasonable charge for the work carried out; and
 - d) whether it is reasonable for the Company to recover charges associated to the reinforcement work from the Authorised Distributor.
- 1.52. We commissioned an independent firm of consultants³ to review the evidence related to the first three points set out above. We have taken into account their opinion in determining in all three points and their report has also informed our opinion on the fourth point. We examine each of these points in turn.

Need for reinforcement

- 1.53. According to the consultants' report, load flow results presented in the Company's Technical Report show that the network was heavily loaded in 2006 prior to reinforcement.
- 1.54. Since 2006, an additional 3.3 MVA of additional demand has connected at [REDACTED] 11 kV, including the Authorised Distributor's connection which is the subject of this determination. Were these connections to be made without any reinforcement, the loading of transformers in the Boulevard and Westbrook groups during any transformer outage would be significantly in excess of short term overload ratings, with a risk of transformer failure and cascade tripping, which would cause the system to be non P2/6 compliant.

Minimum Scheme

- 1.55. According to the consultants' report, five potential schemes were considered by the Company, including moving load to adjacent groups and not reinforcing. The consultants considered that the only technically viable options all required the upgrade of Chapelford substation.
- 1.56. The reinforcements that were carried out for the chosen solution were as follows:
- Installation of primary transformer
 - Installation of 3 panel EHV switchboard
 - Installation and termination of 1.06km of 33 KV cable and associated pilot and communication cables
 - Protection modifications and commissioning
 - New 33 kV Interconnector (Sankey Bridges – Dallam Grid)

³ TNEI Consultants LTD

- Installation and termination of 5.4km of 33kV cable and associated pilot and communication cables
- Protection modifications and commissioning

1.57. These works provided an additional 7.5 MVA capacity at 11 kV. For the 3.2 MVA of new connections since 2007, including all of the Customer's connections, this reinforcement was the minimum scheme.

Reinforcement Charges

1.58. The consultants' report states that the final Company's outturn cost for these reinforcement works was £1.676m. This is a significant increase on the original estimate of £1.028m in the technical report signed in 2006 which considered all reinforcement options available at that time.

1.59. The consultants' cost estimate for the reinforcement works was £2.470m using internal cost data compiled by them and verified against connection quotations from various DNOs. This is significantly higher than both the estimated Company's cost from the 2006 report and the final outturn cost. The consultants noted that the 33kV buried cable cost used by the Company was significantly lower than the typical cost used by the consultants, and the total cost estimate is sensitive to this.

1.60. As a comparison, the consultants produced a lower bound estimate, which used a lower rate of £158,000 per km for 400mm, 3 core, 33.5MVA, XLPE 33kV buried cable with soft dig installation. This lower rate is taken from Ofgem cost data from circa 2006.

1.61. The original cost estimate in the Company's technical report for the upgrade works was 45% lower than the lower bound of the consultant's cost estimate, suggesting the original cost estimate of 2006 was an underestimate. The final cost of the reinforcement is 35% below that estimated by the consultant's report.

Whether it is reasonable to recover charges

1.62. In determining whether it is reasonable for the Company to require the connecting customers to pay for the reinforcement charges, we have considered the evidence provided by the Company, as well as the evidence provided to compile the consultant's report. The following are the timelines for the reinforcement works at [REDACTED] -

- Reinforcement scheme received internal company authorisation in August 2007
- Date of the first provision of the electric line or electrical plant - 31 March 2008
- Connection offer made by the Company to [REDACTED] - 4 August 2009
- Connection offer accepted by [REDACTED] on 20 August 2009 for an increase in supply capacity of 765 kVA
- Assets to facilitate [REDACTED] connection were provided 21 April 2010
- Works completed in Dec 2010 and energised in January 2011

- 1.63. Both the Company's submission and information provided by the Company to the consultants identified [REDACTED] as the "first comer".
- 1.64. The Company argues that the reinforcement work is connections driven and that the initial contributor rule was applied under the Regulations back in 2007 to [REDACTED]. However, we note that [REDACTED] did not accept the connection offer and made no payment towards a connection.
- 1.65. Furthermore, the Company has not provided any evidence to show that there was any firm acceptance of any connection offers until August 2009 when [REDACTED] accepted and paid for their connection. We note that by this stage the reinforcement work had been started 14 months before. Hence [REDACTED] could not be considered to have triggered the reinforcement works.
- 1.66. Based on the evidence provided by the Company, we conclude that the reinforcement work was not in response to [REDACTED] accepting the connection offer. The reinforcement received technical approval three years before an offer was made, accepted and paid for by [REDACTED]. In addition, no evidence submitted to suggest that [REDACTED] have received earlier offers for this connection.

DISCUSSION AND CONCLUSIONS

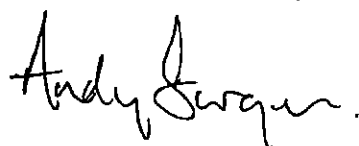
- 1.67. Based on the evidence provided by the Company, the Authorised Distributor, our consultant's report and our assessment of the case, we consider that reinforcement of the network was required to connect additional loads further to those approved in 2006. The consultant's report concluded that it was marginal as to whether reinforcement should have been considered prior to the connection of some of the 4.5 MVA approved load recorded in the 2006 Technical Report.
- 1.68. The Company operates its Manweb area in an interconnected manner that provides redundancy in the event of an outage. The transformers are grouped together and within each group transformers are of standard size. It is therefore not possible to simply upgrade the transformers in the group to higher values. Thus reinforcement options are more complex for this network than may be the case for other DNO areas. The final cost on completion of the works increased from £1.028m from the 2006 Technical Report to £1.676m, which is still lower than the cost estimate provided by other alternative options. We therefore conclude that the reinforcement was the minimum scheme.
- 1.69. The cost of the reinforcement work has been estimated by the consultants and found to be reasonable. The consultant's estimate of the same work is within 8% of the final cost of the reinforcements.
- 1.70. We recognise that at the time when the Company was deciding to undertake the reinforcement work for [REDACTED], there were a number of prospective applicants who expressed an interest in connecting to the network. It has also been established by our consultants that there was a lack of capacity to cater for this high level of demand.

- 1.71. We consider that, given the evidence provided by the Company in its submissions, the Company was not entitled to charge the connecting customer whom it regarded as their initial contributor for the reinforcement work in the Premises. **It follows therefore that under the Regulations the expenses should not have been recovered from any subsequent connections.**
- 1.72. On its own evidence, the Company approved and commenced reinforcement work prior to having received a connection acceptance and payment from a connecting customer and well in advance of the offer made to the first connecting customer. We note that the first provision of plant was provided on March 2008 while the first connecting customer accepted a connection offer in August 2009.
- 1.73. We conclude that the decision to reinforce was made to enable the connections which the Company was expecting to make in the future solely based on expressions of interest but not on any firm acceptance of terms. We note that under different circumstances the Company would not be expected to provide a connection to a person requiring a connection until the Company's offer (or revised offer) had been accepted.
- 1.74. We consider the Company should not have charged for the costs of the reinforcement works **under section 19(1)** as such expenses were incurred approximately 14 months before making the connection for [REDACTED] and consequently the Company has failed to show that the reinforcement costs were incurred as a result of that connection. It then follows that the entitlements and obligations arising out of Regulation 5 and 6 of the Regulations do not apply. Consequently there is no right to recover expenses from the Authorised Distributor under this section 16(1) connection. We consider that the Company was not entitled to charge [REDACTED] as an initial contributor under the Regulations and consequently any rights and obligations on the Company under the Regulations do not apply to this reinforcement project.
- 1.75. We consider that as the Company believed the reinforcement of the network to be necessary in 2007 it could have examined alternative means to fund this reinforcement. We note that electricity distributors can bring investment projects to us for approval as a strategic investment if they can prove that the benefits will be accrued by all customers in the network and not only connecting customers. They also have the option to fund the investment themselves and bear the risks of a new or reinforced asset.
- 1.76. We note that a number of other issues have been raised by the parties on matters that fall outside the scope of this determination and are consequently not an issue for this determination.

- 1.77. Furthermore, we note that in April 2008 the Authority determined a dispute⁴ concerning a point of connection offer to provide electricity to a customer's development and this dispute turned on the point that the Company could only recover previous expenditure where that expenditure was triggered and had been paid for by an "initial contributor". Similarly, in this case, we have not been given any evidence that shows that the reinforcement works have been triggered and paid for by an "initial contributor".

DETERMINATION

- 1.78. The Authority finds that the reinforcement which was energised in 2011 was necessary to enable new connections in [REDACTED]. The reinforcement was the minimum scheme required and the Company charges in themselves were reasonable for the work carried out.
- 1.79. However, the Authority considers it was not reasonable for the Company to recover charges associated with the reinforcement work from the Authorised Distributor for the reasons set out above.
- 1.80. The Authority considers the Company must reimburse the Authorised Distributor as soon as possible for the reinforcement cost charged. The reinforcement charges due to the Authorised Distributor are: **£143,330**.
- 1.81. We also consider that the Company should take steps to avoid similar disputes and to give its customers greater confidence in the service it provides by improving its ability to issue connection quotes more accurately. In issuing a connection quote, the Company should ensure that the systems and processes employed are consistent and accurate.
- 1.82. This document constitutes a notice stating reasons for the Authority's decision for the purpose of section 49A of the Act.



Andrew Burgess
Associate Partner, Transmission and Distribution Policy
Duly authorised on behalf of the Gas and Electricity Markets Authority

31 January 2013

⁴[http://epr.ofgem.gov.uk/Pages/EPRInformation.aspx?doc=http%3a%2f%2fepr.ofgem.gov.uk%2fEPRFiles%2fDetermination+\(RBA-TR-A-DET-90\)+by+the+Authority+concerning+a+terms+of+the+connection+agreement.pdf](http://epr.ofgem.gov.uk/Pages/EPRInformation.aspx?doc=http%3a%2f%2fepr.ofgem.gov.uk%2fEPRFiles%2fDetermination+(RBA-TR-A-DET-90)+by+the+Authority+concerning+a+terms+of+the+connection+agreement.pdf)